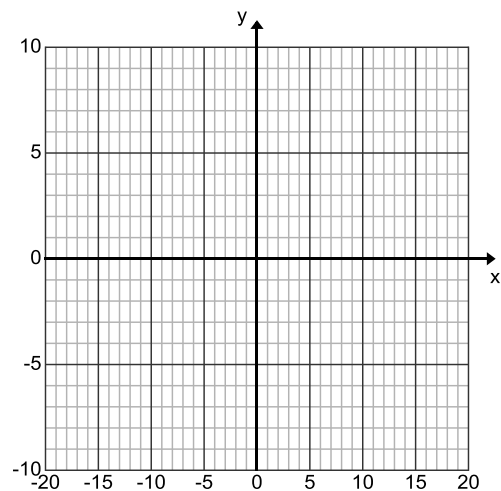


Algebra 2 CP Unit 1 Lesson 1

Do Now: Graph the function $f(x) = 6 - 2x$ Label the y-intercept, x-intercept, and one other point on the graph.



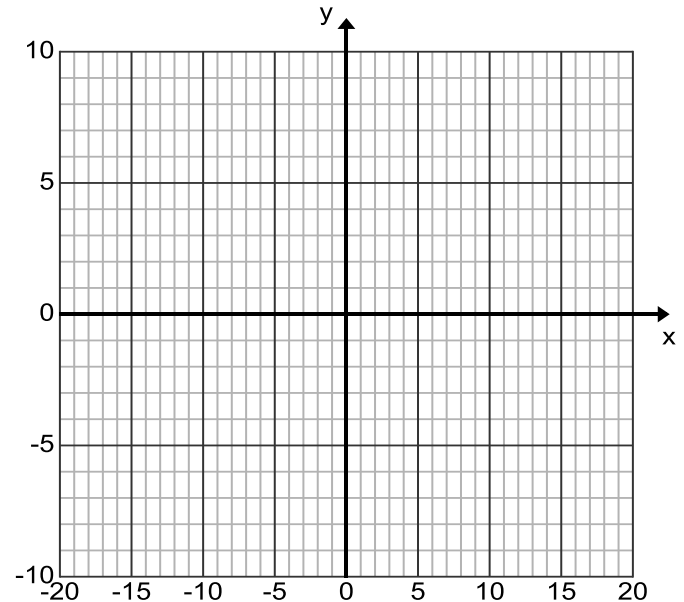
Name: _____

Unit 1 Lesson 2: Analyzing and Comparing Linear Functions

Objective: _____

Algebraic**Directions:** Mark up the following functions by finding properties that will help you graph the functions.

function	slope	y-intercept
$b(x) = 2x - 7$		
$d(x) = \frac{1}{4}x + 4$		
$f(x) = -\frac{2}{3}x$		
$g(x) = -4$		

Graphical**Directions:** Graph each function separately in the coordinate plane. Each function should be graphed in a different color or labeled.**Function Notation****Directions:** Evaluate the following expressions then write your solution as a coordinate point.

1. $d(8) =$

2. $b(-1) =$

3. $f(-3) =$

4. $g(5) =$

5. Find x when $b(x) = -3$

6. Find x when $d(x) = 2$

Communication**Directions:** Analyze the function by answering the following questions with a partner. You may edit your answers in a different color during the class discussion.

1. What is the slope of each function? State if the function increasing, decreasing, or constant?

Function	Slope	Increasing, Decreasing, or Constant
$b(x)$		
$d(x)$		
$f(x)$		
$g(x)$		

2. List the functions in increasing order based on steepness of the line: _____, _____, _____, _____

3. List the functions in increasing order based on the value of the x-intercept: _____, _____, _____,

Algebra 2 CP Unit 1 Lesson 2

Name: _____

Directions: Use the following functions to answer the questions below.

$$b(x) = -\frac{5}{6}x - 3$$

$$d(x) = 1$$

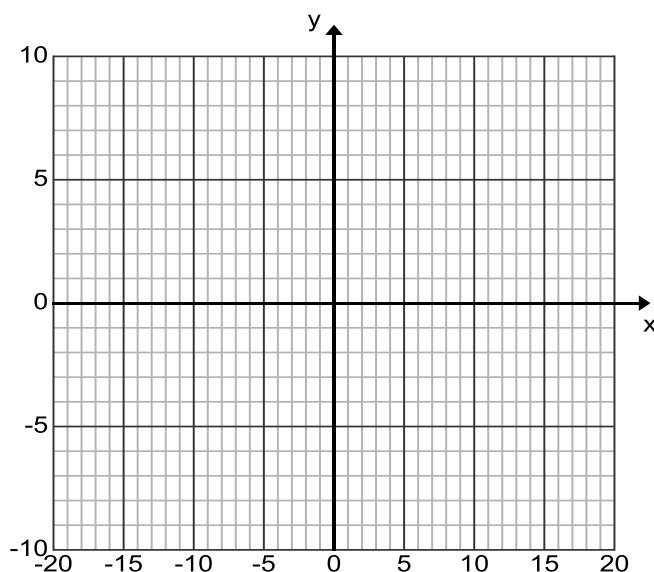
$$f(x) = \frac{1}{2}x$$

$$g(x) = -3x + 2$$

1. List the functions in **increasing order** based on steepness of the line:

_____, _____, _____, _____

2. Graph the functions $b(x)$, $d(x)$, $f(x)$, and $g(x)$ on the coordinate plane below. Use a different color for each function/



3. Complete the following chart to analyze the properties of each function.

Function	Slope	y-intercept	x-intercept	Increasing, Decreasing, or Constant
$b(x)$				
$d(x)$				
$f(x)$				
$g(x)$				

4. Evaluate the following using the function or the graph.

a. $g(x) = -4$

b. $b(x) = 2$

c. $d(9)$